IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A session initiation protocol (SIP) signaling router comprising:

   (a) a plurality of cluster nodes for performing at least one session initiation protocol function, each cluster node storing a local database containing SIP location information and wherein each cluster node is adapted to route SIP signaling messages using the SIP location information stored in the local database; and

   (b) a location server coupled to the cluster nodes for maintaining a database of SIP location information and for automatically replicating the database of SIP location information to each of the cluster nodes in real time in response to receiving updates to the SIP location information, wherein each of the cluster nodes contain common SIP location information.

2. (Original) The SIP signaling router of claim 1 wherein each of the cluster nodes comprises a SIP proxy server.

3. (Original) The SIP signaling router of claim 1 wherein each of the cluster nodes comprises a SIP redirect server.

4. (Original) The SIP signaling router of claim 1 wherein each of the cluster nodes comprises a SIP proxy server and a SIP redirect server.

5. (Original) The SIP signaling router of claim 1 wherein the location server is adapted to replicate the database of SIP location information to each of the cluster nodes using a reliable multicast transport protocol (RMTP).

6. (Original) The SIP signaling router of claim 1 comprising first and second layer 2 switches coupled to each of the cluster nodes.

7. (Original) The SIP signaling router of claim 6 wherein each of the cluster nodes include first and second network interfaces and the first layer 2 switch is coupled to the first network interface of each of the cluster nodes and the second layer 2 switch is coupled to the second network interface of each of the cluster nodes.

8. (Original) The SIP signaling router of claim 7 wherein at least one of the first and second layer 2 switches is configured to periodically ping each of the cluster nodes to determine sub-application level protocol stack operational status of the cluster nodes.

9. (Original) The SIP signaling router of claim 7 wherein the first layer 2 switch is adapted to periodically send health check messages to each of the cluster nodes to determine application-level operational status.

10. (Original) The SIP signaling router of claim 9 wherein the first layer 2 switch is adapted to determine the operational status based on the response time of each of the cluster nodes to the health check messages.

11. (Original) The SIP signaling router of claim 6 wherein the first and second layer 2 switches are redundantly connected to each of the cluster nodes.

12. (Original) The SIP signaling router of claim 11 wherein the first and second layer 2 switches are adapted to dynamically reroute SIP signaling traffic around congested or failed signaling links using a link aggregation control protocol.

13. (Previously Presented) A session initiation protocol (SIP) signaling router comprising:

(a) a plurality of cluster nodes for performing at least one session initiation protocol function, each cluster node storing a local database containing SIP location information; and

(b) a location server coupled to the cluster nodes for maintaining a database of SIP location information and for automatically replicating the database of SIP location information to each of the cluster nodes in real time in response to receiving updates to the SIP location information, wherein the location server includes:

(i) a provisioning database task for provisioning the SIP location information in the database;

(ii) a database provisioning log for tracking changes to the database; and

(iii) a network provisioning task for detecting updates to the database based on the database provisioning log and for distributing the updates to the cluster nodes in real time in response to detecting the updates.

14. (Original) The SIP signaling router of claim 13 wherein the network provisioning task is adapted to multicast the updates to the cluster nodes.

15. (Original) The SIP signaling router of claim 13 wherein the network provisioning task is adapted to multicast the updates to the cluster nodes using the reliable multicast transport protocol.

16. (Original) The SIP signaling router of claim 1 wherein the cluster nodes and the location server each comprise stand alone computers or workstations.

17. (Original) The SIP signaling router of claim 1 further comprising an interprocessor message transport bus for carrying message between the cluster nodes and the location server, wherein the cluster nodes and the location server each comprise a printed circuit board connected to the interprocessor message transport bus.

18-23. (Canceled)

24. (Currently Amended) A method for routing session initiation protocol (SIP) signaling messages, the method comprising:

(a) replicating a database of SIP location information from a location server to a plurality of cluster nodes such that the cluster nodes ~~contain~~ store common SIP location information, each cluster node performing a SIP protocol function, wherein performing the SIP protocol function includes routing SIP signaling messages using the common SIP location information stored by each cluster node;

(b) receiving SIP signaling messages at the cluster nodes for requesting SIP protocol services; and

(c) determining SIP location information for the SIP signaling messages in real time using the local databases at the cluster nodes without querying the location server.

25. (Previously Presented) A method for routing session initiation protocol (SIP) signaling messages, the method comprising:

(a) replicating a database of SIP location information from a location server to a plurality of cluster nodes, each cluster node performing a SIP protocol function;

(b) receiving SIP signaling messages at the cluster nodes for requesting SIP protocol services; and

(c) determining SIP location information for the SIP signaling messages in real time using the local databases at the cluster nodes without querying the location server,

wherein replicating a database of SIP location information to the cluster nodes includes notifying the cluster nodes of incremental changes in the database level at the location server and incrementally updating the location databases maintained by the cluster nodes as changes are made to the database maintained by the location server.

26. (Previously Presented) A method for routing session initiation protocol (SIP) signaling messages, the method comprising:

(a) replicating a database of SIP location information from a location server to a plurality of cluster nodes, each cluster node performing a SIP protocol function;

(b) receiving SIP signaling messages at the cluster nodes for requesting SIP protocol services; and

(c) determining SIP location information for the SIP signaling messages in real time using the local databases at the cluster nodes without querying the location server,

wherein replicating a database of SIP location information to the cluster nodes includes reloading the database on each of the cluster nodes when a database level difference between the cluster nodes and the location server exceeds a predetermined threshold.

27. (Original) The method of claim 24 wherein replicating a database of SIP location information to the cluster nodes includes forwarding database updates to the cluster nodes using the reliable multicast transport protocol.

28. (Original) The method of claim 24 wherein the SIP signaling messages include SIP INVITE messages.

29-37. (Canceled)